

Application No. 10/802,502
Reply to Office Action of May 3, 2007

Annotated Sheets Showing Changes

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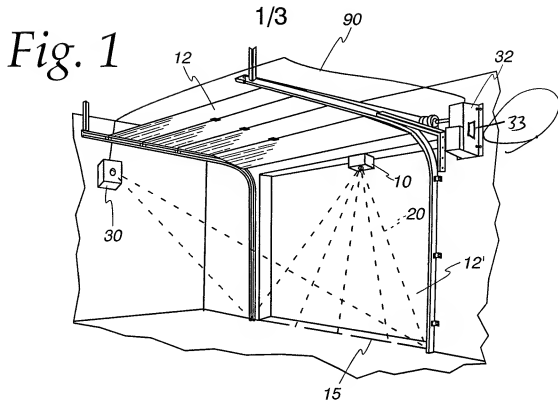
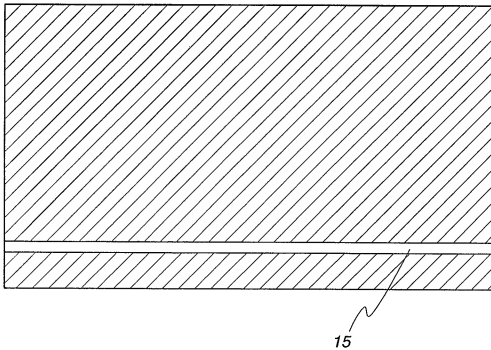


Fig. 2



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Fig. 3

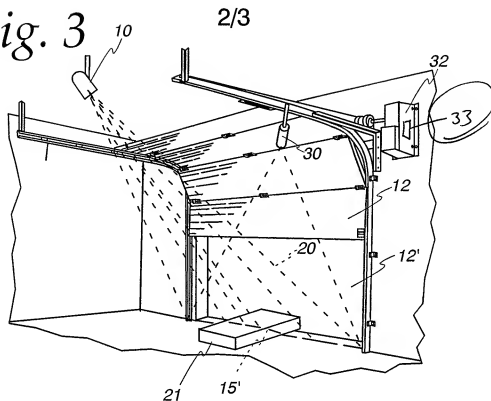
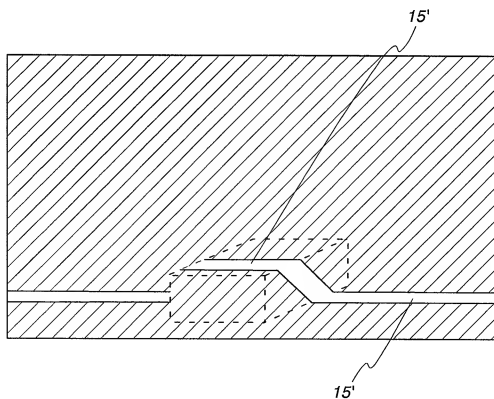


Fig. 4



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Fig. 5

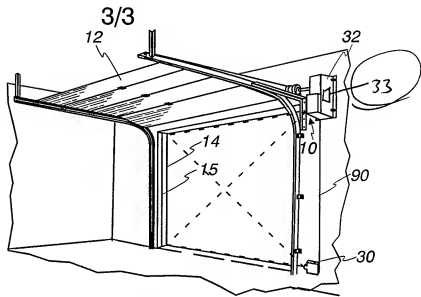


Fig. 6

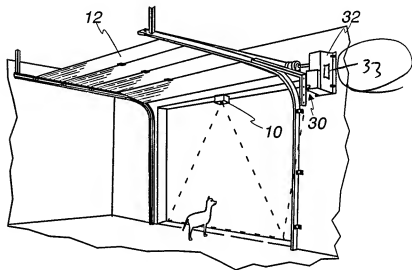
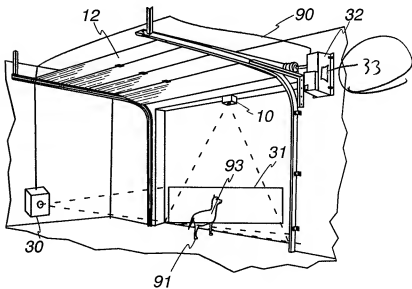


Fig. 7



REMARKS

Introduction

With this amendment, claims 1, 14, 18, and 21-23 have been amended. Claims 1-25 are pending. Claims 1, 14, 18, and 21-23 are the only independent claims.

The Rejections In The Office Action

1. The Objections to the Drawings

The Office Action objected to the drawings under 37 CFR 1.83(a) and stated that the drawings must show every feature in the claims or the features must be cancelled from the claims. The Office Action did *not* identify the features in the claims that were allegedly missing from the drawings.

2. The Art-based Rejections

The Examiner rejected claims 14-19 and 23-24 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,841,780 to Cofer. The Office Action rejected claims 1-13 and 21-22 under 35 U.S.C. §103(a) as being unpatentable over U.S. Published Application 2003/0118237 to Laird in view of Cofer. Claims 20 and 25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cofer in view of Laird.

The Pending Claims Are Allowable

1. The Objections to the Drawings are Obviated

The Applicants have amended the drawings to show a controller. No new matter has been entered. It is submitted that all claim elements are shown in the drawings. Additionally, the Specification has been amended so that the changes to the drawings are reflected in the Specification. If the Examiner still feels that the drawings do not show all the claim elements, the Applicants respectfully request that the Examiner identify the elements in the claims allegedly not shown in the drawings.

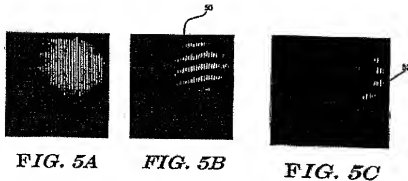
2. The Claims Are Allowable Over the Art

a. Claims 14-19 and 23-24 are not anticipated by Cofer

Cofer describes a system that detects the presence of objects in a monitored area. One or more complex patterns of light are projected onto the monitored area. Changes in the complex patterns are detected in the monitored area and these changes indicate the presence of an object in the monitored area. See Cofer, Abstract.

More specifically, a moiré interference pattern is projected onto the monitored area. The moiré interference pattern may be created in several ways. For example, two complex patterns of light may be projected onto the same area. Additionally, one pattern may be projected onto the monitored area while another may be imposed by a pattern grating positioned in the image plane of an image capture device. Further, two images of the same pattern in the same area may be captured and rotated. See Cofer, col. 2, lines 1-39.

For example, FIG. 5a of Cofer shows a first complex pattern of parallel light elements projected onto a monitored area. FIG. 5b of Cofer shows a second complex pattern superimposed on the first pattern thereby creating a moiré interference pattern. As can be seen in FIG. 5b, the long parallel light elements have been eliminated. In fact, some of the light elements do not appear to be lines at all but are points of light or irregular, fuzzy polygons. Moreover, the pattern shown in FIG. 5b is the interference pattern actually used to detect an object. FIG. 5c of Cofer shows the pattern of FIG. 5b when an object is present in the monitored area. See FIGs. 5a, 5b, and 5c of Cofer reproduced below for the convenience of the Examiner.



Cofer does not teach or suggest the projection of a single straight line of light as recited

in claim 14. Cofer also does not teach or suggest determining when a single straight line of light changes also as recited in claim 14. At best, multiple fuzzy, non-linear, and complex light elements are created in the Cofer system as can be seen in FIG. 5b of Cofer. The Applicants' system is simpler, easier to use, and more cost effective than the complicated arrangement of Cofer. Consequently, since elements of claim 14 are not taught or suggested by Cofer, it is submitted that claim 4 is not anticipated by Cofer.

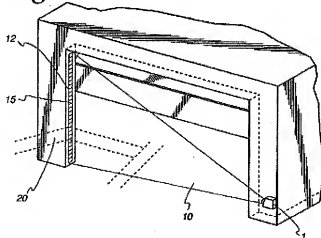
Claims 18 and 23 have recitations similar to claim 23 and are submitted to be allowable for the same reasons as claim 14. Claims 15-17, 19, and 24 are dependent upon the independent claims 14, 18, and 23. Since the independent claims are allowable, it is submitted that these dependent claims are also allowable.

b. Claims 1-13 and 21-22 are Allowable over the Laird-Cofer Combination

As mentioned above, Cofer does not teach or suggest the projection of a single straight line of light as recited in claim 1. Cofer also does not teach or suggest determining when the straight line pattern has changed also as recited in claim 1.

As for Laird, a CCD camera 1 detects a pattern 15 that is *physically fixed* to the outside wall of a garage. See FIG. 1 of Laird reproduced below for the convenience of the Examiner.

Fig. 1



Laird does not teach or suggest the projection of a single straight line of light as recited in claim 1. In fact, because there is no image projection device, nothing can be projected in Laird. In

addition, Laird does not teach or suggest determining when the single straight line of line changes also as recited in claim 1. Since the above-mentioned claim elements are not taught or suggested by either Laird or Cofer, it is submitted that claim 1 is allowable over the proposed combination.

Claims 2-13 depend directly or indirectly upon claim 1. Since claim 1 is allowable, it is submitted that these dependent claims are also allowable.

Independent claims 21 and 22 have recitations similar to claim 1 and are submitted to be allowable for the same reasons as claim 1.

c. Claims 20 and 25 are Not Unpatentable over Cofer and Laird

Claim 20 depends upon claim 18 and claim 25 depends upon claim 23. Since claim 18 and 23 are allowable for the reasons stated above, it is submitted that these dependent claims are also allowable.

Conclusion

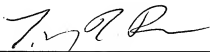
Based upon the foregoing amendments and remarks, it is submitted that the pending claims and application are in condition for allowance. The Commissioner is hereby authorized to charge any additional fees which may be required in this application to Deposit Account No. 06-1135.

Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY

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By: _____



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